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United States Department of Agriculture
✓ Forest Service

✓
CHECK-LIST OF THE VERTEBRATE FAUNA
OF THE SAN DINAS EXPERIMENTAL FOREST

by

John T. Wright and Jerome S. Horton

✓
California Forest and Range Experiment Station*
S. N. Wyckoff, Director

August, 1946

* Maintained at Berkeley, California, in cooperation with
the University of California. ✓

CHECK-LIST OF THE VERTEBRATE FAUNA OF THE SAN DIMAS EXPERIMENTAL FOREST

By John T. Wright and Jerome S. Horton

During the initial phase of watershed management research on the San Dimas Experimental Forest, inventory surveys were made of the physical features of the Forest which directly influence waterflow; namely, vegetation, soils, and geologic structure. Although there was no pressing need for an inventory of the vertebrate fauna in connection with the hydrologic research program, it was felt that such an inventory for the mountain area represented by the Experimental Forest would be of considerable scientific interest, and might indirectly give information of value in the interpretation of watershed problems. The opportunity to make such a study presented itself during the course of an emergency works program (W.P.A.) when the services of a naturalist-collector became available. Most of the collecting and identifying were done at that time.

The San Dimas Experimental Forest is a branch of the California Forest and Range Experiment Station, Forest Service, U. S. Department of Agriculture. It was established for research in the management of Southern California watersheds. The Forest comprises approximately 17,000 acres situated in the San Gabriel Mountains of eastern Los Angeles County, California. It includes the watersheds of Big Dalton and San Dimas Creeks, tributaries of the San Gabriel River.

The Experimental Forest lies between 1500 and 5500 feet in altitude, with the bulk of the area lying below 4000 feet. Thus the Forest is well within the Upper Sonoran life zone with small areas in the Transition life zone at higher altitudes. The topography is rugged, characterized by steep slopes and precipitous canyons. A striking contrast is presented by Brown's Flat, a level area of approximately fifty acres covered with an open forest of ponderosa pine.

The vegetation types in the San Dimas Forest are shown in the accompanying table. The use of the term "chaparral" in describing habitat in the check-list indicates that the species is found in both the chamise and oak chaparral associations. Likewise, the term "woodland" refers to both stream and oak woodland associations, and "forest" to both forest associations.

Flood control and water conservation dams, built by the County of Los Angeles in San Dimas and Big Dalton Canyons, impound water during most of the year. Several species of water birds have been observed resting upon these artificial bodies of water during migration. Other species have become resident to the immediate vicinity of the dams.

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Vegetation Associations
of the San Dimas Experimental Forest

Association	Dominant Species	Density	Altitude
Chamise chaparral	<i>Adenostoma fasciculatum</i> <i>Ceanothus crassifolius</i> <i>Arctostaphylos glauca</i>	Open to fairly dense	Below 5000 feet
Oak chaparral	<i>Quercus dumosa</i> (below 4000') <i>Quercus wislizenii</i> (above 3500')	Very dense	Throughout
Stream woodland	<i>Quercus agrifolia</i> <i>Platanus racemosa</i> <i>Acer macrophyllum</i> <i>Populus trichocarpa</i> <i>Alnus rhombifolia</i> <i>Salix</i> species	Open (some- times with grassy areas) to dense	Below 4000 feet
Oak woodland	<i>Quercus chrysolepis</i>	Dense	Above 4000 feet
Bigcone spruce forest	<i>Pseudotsuga macrocarpa</i> <i>Pinus lambertiana</i> (above 5000' only)	Open to fairly dense	Above 4000 feet
Ponderosa pine forest	<i>Pinus ponderosa</i>	Open, large part grassy	4300 feet at Brown's Flat

Dr. Alden H. Miller, Director of the University Museum of Vertebrate Zoology, Berkeley, California, has very kindly identified many of the species and has reviewed the manuscript.

Most of the observations in the check-lists were made by John T. Wright during the period 1936-38. Subsequent observations and preparation of the check-lists were made by Jerome S. Horton. Joseph Gorman assisted in the collection of the reptiles and amphibians. Paul Kaiser, custodian of Big Dalton Dam, has been cooperative in reporting occurrences of birds on that reservoir. A reference collection of most of the vertebrate fauna has been assembled at the field headquarters at Tanbark Flat. Species marked with an asterisk are not represented in the collection.

Authorities for the nomenclature used in the list are Joseph Grinnell's "Review of the recent mammal fauna of California," University of California Publications in Zoology, Vol. 40, pp. 71-234, 1933; Grinnell and Miller's "Distribution of the birds of California," Pacific Coast Avifauna, No. 27, pp. 1-608, 1944; and Joseph Slevin's "A handbook of reptiles and amphibians of the Pacific states," California Academy of Sciences, San Francisco, 1934.

UNITED STATES DEPARTMENT OF AGRICULTURE
BUREAU OF PLANT INDUSTRY

Washington, D. C., January 1, 1914

Mr. J. H. ...
...

Dear Sir:

I have the honor to acknowledge the receipt of your letter of the 28th inst. and in reply to inform you that the same has been forwarded to the proper authorities for their consideration.

I am, Sir, very respectfully,
Yours very truly,

...

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...

CHECK LIST OF MAMMALS FOUND IN THE SAN DIMAS EXPERIMENTAL FOREST

POUCHED MAMMALS

Virginia Opossum (Didelphis virginiana virginiana)
Stream vegetation in major canyons below 2000 feet.

INSECTIVOROUS MAMMALS

Southern California Mole (Scapanus latimanus occultus)
Common throughout in fairly rich, loamy soil.

Adorned Shrew (Sorex ornatus ornatus)
Rare; collected from both chaparral and grassy areas; elev. 3000 ft.

BATS

Southern Little California Bat (Myotis californicus californicus)
Common near stream vegetation.

Black-nosed Bat (Myotis subulatus melanorhinus)
Stream Woodland.

Merriam Canon Bat (Pipistrellus hesperus merriami)
Collected foraging over Flood Control Reservoir.

Large Brown Bat (Eptesicus fuscus)
Stream Woodland.

*Hoary Bat (Nycteris cinerea)
Specimen collected by Paul Kaiser near Dalton Dam is in U. C. Museum
of Vertebrate Zoology.

Mexican Free-tailed Bat (Tadarida mexicana)
Collected roosting in building.

CARNIVOROUS MAMMALS

California Coon (Procyon lotor psora)
Numerous primarily in the canyons near water.

San Diego Ring-tailed Cat (Bassariscus astutus octavus)
Few individuals in major canyons below 2000 feet.

*Southern California Striped Skunk (Mephitis mephitis holzneri)
Throughout but commonest near water.

*California Gray Fox (Urocyon cinereoargenteus californicus)
Common in chaparral.

*No specimen in Tanbark Museum.

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California Valley Coyote (Canis latrans ochropus)
Common throughout.

*California Mountain Lion (Felis concolor californica)
A frequent visitor; not permanent resident.

*California Wildcat (Lynx rufus californicus)
Fairly common throughout.

RODENTS

Beechey Ground Squirrel (Citellus beecheyi beecheyi)
Throughout; commonest along roads and about habitations.

Merriam Chipmunk (Eutamias merriami merriami)
Abundant in dense chaparral and woodland between 3000 and 5500 feet;
occurs as low as 1500 feet.

Anthony Gray Squirrel (Sciurus griseus anthonyi)
Common in woodland associations.

Grapeland Pocket Gopher (Thomomys bottae pallescens)
Below 3000 ft.; abundant in San Dimas Canyon below 1800 ft.

San Gabriel Mountain Pocket Gopher (Thomomys bottae neglectus)
Above 4000 ft. Abundant in Brown's Flat.

Allen California Pocket Mouse (Perognathus californicus dispar)
Occasional in open chamise chaparral below 3000 ft.

Gambel Kangaroo Rat (Dipodomys agilis agilis)
Abundant in Brown's Flat; elsewhere occasional colonies in cleared
ground or open chamise chaparral.

Long-tailed Harvest Mouse (Reithrodontomys megalotis longicaudus)
Grassy areas below 3000 feet.

Southern Parasitic Mouse (Peromyscus californicus insignis)
Common throughout in oak chaparral.

Dulzura White-footed Mouse (Peromyscus eremicus fraterculus)
Open chamise chaparral in Big Dalton Canyon.

Gambel White-footed Mouse (Peromyscus maniculatus gambelii)
Common throughout in all types of vegetation.

Rowley White-footed Mouse (Peromyscus boylii rowleyi)
Abundant in oak chaparral and woodland where near permanent water.

San Bernardino White-footed Mouse (Peromyscus truei chlorus)
Occasional; open chamise chaparral.

* No specimen in Tanbark Museum.

1. The first of these is the fact that the *Journal* is a very valuable source of information for the study of the history of the United States.

1880

1. The first step is to identify the problem. In this case, the problem is that the system is not working properly.

1. *Pharmaceutical industry*—United States—History. I. Title. II. Series.

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the *Journal of the American Medical Association* (JAMA) and the *New England Journal of Medicine* (NEJM) are the most widely read and cited journals in the field of medicine. The *JAMA* is published weekly, while the *NEJM* is published weekly, except for a combined issue in December. Both journals are published by the American Medical Association (AMA) and the Massachusetts Medical Society, respectively. The *JAMA* and the *NEJM* are both highly respected and influential journals in the field of medicine, and their content is widely cited in the medical literature.

THESE RECHERCHES SONT LE FRUIT D'UN TRAVAIL FAIT EN COMMUN AVEC MONSIEUR J. L. LAFITE, A LAQUELLE JE ME REVOIE AVEC UN VIF INTERET.

1947-1948

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Intermediate Wood Rat (Neotoma lepida intermedia)

Occasional; chamise chaparral or sage; below 3000.

San Diego Wood Rat (Neotoma fuscipes macrotis)

Abundant throughout; especially in dense chaparral or along stream courses. See Horton and Wright, "The Wood Rat as an Ecological Factor in Southern California Watersheds," Ecology 25:341-351, 1944.

Southern California Meadow Mouse (Microtus californicus sanctidiegi)

Permanent colony in Brown's Flat. Occasional elsewhere in grassy areas.

San Diego Cottontail (Sylvilagus auduboni sanctidiegi)

Open areas in the chaparral; especially abundant around edges of pine plantations at Tanbark Flat.

*Columbian Black-tailed Deer (Odocoileus hemionus columbianus)

Common throughout.

*No specimen in Tanbark Museum.

CHECK LIST OF BIRDS FOUND ON THE SAN DIMAS EXPERIMENTAL FOREST

PELICANS, CORMORANTS, etc.

- *White Pelican (Pelecanus erythrorhynchos)
Migrant; occasionally rests on the Flood Control Reservoirs.
- *Double-crested Cormorant (Phalacrocorax auritus albociliatus)
Migrant; Big Dalton Reservoir.

HERONS

- *Great Blue Heron (Ardea herodias hyperonca)
Summer visitor; no record of nesting.
- *Common Egret (Casmerodius albus egretta)
Rare migrant.
- *Black-crowned Night Heron (Nycticorax nycticorax hoactli)
Small colony nested in 1936 in live oaks at the head of San Dimas Reservoir.

DUCKS, etc.

- *Mallard (Anas platyrhynchos)
Occasional migrant; on Flood Control Reservoirs.
- *Pintail (Anas acuta tzitzihoa)
Migrant; on Flood Control Reservoirs.
- *Red-breasted Merganser (Mergus serrator)
Occasional migrant on Flood Control Reservoirs.

VULTURES, HAWKS, AND EAGLES

- *Turkey Vulture (Cathartes aura teter)
Occasionally observed in flight.
- Sharp-shinned Hawk (Accipiter striatus velox)
Common throughout.
- Cooper Hawk (Accipiter cooperii)
Common throughout.
- Red-tailed Hawk (Buteo jamaicensis calurus)
Common throughout.
- *Golden Eagle (Aquila chrysaetos canadensis)
Occasional, sometimes nests near top of cliffs in San Dimas Canyon, elevation 2000 feet; nests made of Yucca leaves.

*No specimen in Tanbark Museum.

* Marsh Hawk (Circus cyaneus hudsonius)

Rare; foothills at mouth of San Dimas Canyon.

Sparrow Hawk (Falco sparverius sparverius)

Fairly common up to 3000 ft. in the foothills near the valley.

QUAILS, etc.

Mountain Quail (Oreortyx picta eremophila)

Abundant above 1600 feet.

California Quail (Lophortyx californica californica)

Abundant in the foothills and occasional up to 3000 feet.

CRANES, RAILS, etc.

* American Coot (Fulica americana americana)

Observed in the winter resting on Flood Control Reservoirs.

SHORE BIRDS

Killdeer (Oxyechus vociferus vociferus)

Yearly visitor; Flood Control Reservoirs.

Spotted Sandpiper (Actitis macularia)

Yearly visitor; Flood Control Reservoirs.

PIGEONS, DOVES, etc.

Band-tailed Pigeon (Columba fasciata monilis)

Common especially above 3500 feet; usually in large flocks.

Mourning Dove (Zenaidura macroura marginella)

Occasional, usually below 3000 feet.

CUCKOOS, etc.

Yellow-billed Cuckoo (Coccyzus americanus occidentalis)

Heard in dense willow thicket in Big Dalton Canyon at 1500 feet.

California Road-runner (Geococcyx californianus)

Occasional up to 3000 feet.

OWLS

Barn Owl (Tyto alba pratincola)

Occasional in the canyons below 2000 feet.

Screech Owl (Otus asio quercinus)

Common throughout; associated with live oaks.

*No specimen in Tanbark Museum.

Horned Owl (Bubo virginianus pacificus)

Common throughout usually, but not confined to woodland associations.

* Burrowing Owl (Speotyto cunicularia hypugaea)

Rare; firebreaks and grassy areas below 2000 feet.

* Spotted Owl (Strix occidentalis occidentalis)

Rare. One individual caught in deep wooded canyon at 1800 feet.

Short-eared Owl (Asio flammeus flammeus)

Migrant; one individual collected at 3400 feet.

GOATSUCKERS, etc.

Poor-will (Phalaenoptilus nuttallii californicus)

Common in summer; frequently seen at night along roads.

SWIFTS AND HUMMINGBIRDS

White-throated Swift (Aëronautus saxatalis saxatalis)

Common; nests on the high cliffs in San Dimas Canyon.

Black-chinned Hummingbird (Archilochus alexandri)

Summer visitor; along streams below 3000 feet.

Anna Hummingbird (Calypte anna)

Abundant resident; usually nests near streams.

KINGFISHERS

Belted Kingfisher (Megaceryle alcyon caurina)

Occasional; Flood Control San Dimas Reservoirs; no record of nesting.

WOODPECKERS

Red-shafted Flicker (Colaptes cafer collaris)

Common throughout.

Acorn Woodpecker (Balanosphyra formicivora bairdi)

Occasional in woodland with live oaks; abundant in valley.

Yellow-bellied Sapsucker (Sphyrapicus varius daggetti)

Occasional throughout.

Hairy Woodpecker (Dryobates villosus hyloscopus)

Common in Quercus chrysolepis woodland; above 3000 feet.

Downy Woodpecker (Dryobates pubescens turati)

Occasional; below 2000 feet, among willows.

* No specimen in Tanbark Museum.

Journal of Management Studies, 20(6), 791-806.

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1. The first step in the process is to identify the problem. This involves gathering information about the situation and understanding the needs of the stakeholders involved.

• *Journal of the American Medical Association*, 2000; 283: 2686-2692.

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1. 1940. 1941. 1942. 1943. 1944. 1945. 1946. 1947. 1948. 1949. 1950. 1951. 1952. 1953. 1954. 1955. 1956. 1957. 1958. 1959. 1960. 1961. 1962. 1963. 1964. 1965. 1966. 1967. 1968. 1969. 1970. 1971. 1972. 1973. 1974. 1975. 1976. 1977. 1978. 1979. 1980. 1981. 1982. 1983. 1984. 1985. 1986. 1987. 1988. 1989. 1990. 1991. 1992. 1993. 1994. 1995. 1996. 1997. 1998. 1999. 2000. 2001. 2002. 2003. 2004. 2005. 2006. 2007. 2008. 2009. 2010. 2011. 2012. 2013. 2014. 2015. 2016. 2017. 2018. 2019. 2020. 2021. 2022. 2023. 2024. 2025. 2026. 2027. 2028. 2029. 2030. 2031. 2032. 2033. 2034. 2035. 2036. 2037. 2038. 2039. 2040. 2041. 2042. 2043. 2044. 2045. 2046. 2047. 2048. 2049. 2050. 2051. 2052. 2053. 2054. 2055. 2056. 2057. 2058. 2059. 2060. 2061. 2062. 2063. 2064. 2065. 2066. 2067. 2068. 2069. 2070. 2071. 2072. 2073. 2074. 2075. 2076. 2077. 2078. 2079. 2080. 2081. 2082. 2083. 2084. 2085. 2086. 2087. 2088. 2089. 2090. 2091. 2092. 2093. 2094. 2095. 2096. 2097. 2098. 2099. 2100. 2101. 2102. 2103. 2104. 2105. 2106. 2107. 2108. 2109. 2110. 2111. 2112. 2113. 2114. 2115. 2116. 2117. 2118. 2119. 2120. 2121. 2122. 2123. 2124. 2125. 2126. 2127. 2128. 2129. 2130. 2131. 2132. 2133. 2134. 2135. 2136. 2137. 2138. 2139. 2140. 2141. 2142. 2143. 2144. 2145. 2146. 2147. 2148. 2149. 2150. 2151. 2152. 2153. 2154. 2155. 2156. 2157. 2158. 2159. 2160. 2161. 2162. 2163. 2164. 2165. 2166. 2167. 2168. 2169. 2170. 2171. 2172. 2173. 2174. 2175. 2176. 2177. 2178. 2179. 2180. 2181. 2182. 2183. 2184. 2185. 2186. 2187. 2188. 2189. 2190. 2191. 2192. 2193. 2194. 2195. 2196. 2197. 2198. 2199. 2200. 2201. 2202. 2203. 2204. 2205. 2206. 2207. 2208. 2209. 2210. 2211. 2212. 2213. 2214. 2215. 2216. 2217. 2218. 2219. 2220. 2221. 2222. 2223. 2224. 2225. 2226. 2227. 2228. 2229. 2230. 2231. 2232. 2233. 2234. 2235. 2236. 2237. 2238. 2239. 2240. 2241. 2242. 2243. 2244. 2245. 2246. 2247. 2248. 2249. 2250. 2251. 2252. 2253. 2254. 2255. 2256. 2257. 2258. 2259. 2260. 2261. 2262. 2263. 2264. 2265. 2266. 2267. 2268. 2269. 2270. 2271. 2272. 2273. 2274. 2275. 2276. 2277. 2278. 2279. 2280. 2281. 2282. 2283. 2284. 2285. 2286. 2287. 2288. 2289. 2290. 2291. 2292. 2293. 2294. 2295. 2296. 2297. 2298. 2299. 2300. 2301. 2302. 2303. 2304. 2305. 2306. 2307. 2308. 2309. 2310. 2311. 2312. 2313. 2314. 2315. 2316. 2317. 2318. 2319. 2320. 2321. 2322. 2323. 2324. 2325. 2326. 2327. 2328. 2329. 2330. 2331. 2332. 2333. 2334. 2335. 2336. 2337. 2338. 2339. 2340. 2341. 2342. 2343. 2344. 2345. 2346. 2347. 2348. 2349. 2350. 2351. 2352. 2353. 2354. 2355. 2356. 2357. 2358. 2359. 2360. 2361. 2362. 2363. 2364. 2365. 2366. 2367. 2368. 2369. 2370. 2371. 2372. 2373. 2374. 2375. 2376. 2377. 2378. 2379. 2380. 2381. 2382. 2383. 2384. 2385. 2386. 2387. 2388. 2389. 2390. 2391. 2392. 2393. 2394. 2395. 2396. 2397. 2398. 2399. 2400. 2401. 2402. 2403. 2404. 2405. 2406. 2407. 2408. 2409. 2410. 2411. 2412. 2413. 2414. 2415. 2416. 2417. 2418. 2419. 2420. 2421. 2422. 2423. 2424. 2425. 2426. 2427. 2428. 2429. 2430. 2431. 2432. 2433. 2434. 2435. 2436. 2437. 2438. 2439. 2440. 2441. 2442. 2443. 2444. 2445. 2446. 2447. 2448. 2449. 2450. 2451. 2452. 2453. 2454. 2455. 2456. 2457. 2458. 2459. 2460. 2461. 2462. 2463. 2464. 2465. 2466. 2467. 2468. 2469. 2470. 2471. 2472. 2473. 2474. 2475. 2476. 2477. 2478. 2479. 2480. 2481. 2482. 2483. 2484. 2485. 2486. 2487. 2488. 2489. 2490. 2491. 2492. 2493. 2494. 2495. 2496. 2497. 2498. 2499. 2500. 2501. 2502. 2503. 2504. 2505. 2506. 2507. 2508. 2509. 2510. 2511. 2512. 2513. 2514. 2515. 2516. 2517. 2518. 2519. 2520. 2521. 2522. 2523. 2524. 2525. 2526. 2527. 2528. 2529. 2530. 2531. 2532. 2533. 2534. 2535. 2536. 2537. 2538. 2539. 2540. 2541. 2542. 2543. 2544. 2545. 2546. 2547. 2548. 2549. 2550. 2551. 2552. 2553. 2554. 2555. 2556. 2557. 2558. 2559. 2560. 2561. 2562. 2563. 2564. 2565. 2566. 2567. 2568. 2569. 2570. 2571. 2572. 2573. 2574. 2575. 2576. 2577. 2578. 2579. 2580. 2581. 2582. 2583. 2584. 2585. 2586. 2587. 2588. 2589. 2590. 2591. 2592. 2593. 2594. 2595. 2596. 2597. 2598. 2599. 2600. 2601. 2602. 2603. 2604. 2605. 2606. 2607. 2608. 2609. 2610. 2611. 2612. 2613. 2614. 2615. 2616. 2617. 2618. 2619. 2620. 2621.

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1. *Phragmites australis* (Cav.) Trin. ex Steud.

the 1990s, the number of people in the world who are under 15 years of age is expected to increase by 1.2 billion, from 1.1 billion in 1990 to 2.3 billion in 2010. The number of people aged 65 and over is expected to increase by 1.1 billion, from 0.4 billion in 1990 to 1.5 billion in 2010. The number of people aged 15-64 is expected to increase by 1.1 billion, from 1.1 billion in 1990 to 2.2 billion in 2010. The number of people aged 65 and over is expected to increase by 1.1 billion, from 0.4 billion in 1990 to 1.5 billion in 2010. The number of people aged 15-64 is expected to increase by 1.1 billion, from 1.1 billion in 1990 to 2.2 billion in 2010.

1. 1990年1月1日 以前，1990年1月1日 以后

[illegible]

1. *Pharmaceutical industry*—United States—History. I. Title. II. Series.

Nuttall Woodpecker (Dryobates nuttallii)
Abundant throughout; usually in live oaks.

PERCHING BIRDS - FLYCATCHERS

*Western Kingbird (Tyrannus verticalis)
Occasional below 3000 feet, in summer.

Ash-throated Flycatcher (Myiarchus cinerascens cinerascens)
Common throughout, in summer.

Black-Phoebe (Sayornis nigricans semiatra)
Abundant near water.

Hammond Flycatcher (Empidonax hammondii)
Migrant; April.

Western Flycatcher (Empidonax difficilis difficilis)
Common below 3000 ft. near streams, in summer.

Wood Pewee (Myiochanes richardsonii richardsonii)
Common throughout, in summer.

SWALLOWS

Violet-green Swallow (Tachycineta thalassina lepida)
Nests on Big Dalton Dam. Observed also at San Dimas Reservoir.

Rough-winged Swallow (Stelgidopteryx ruficolis psammochrons)
Nests in steep banks in San Dimas Canyon, below 2000 feet.

*Cliff Swallow (Petrochelidon albifrons albifrons)
Nests on Big Dalton Dam.

JAYS, etc.

Steller Jay (Cyanocitta stelleri frontalis)
Abundant in summer above 4000 feet; in winter, frequently abundant in woodlands as low as 1500 feet.

California Jay (Aphelocoma californica californica)
Abundant throughout; especially fond of acorns.

TITMICE, CHICKADEES, etc.

Mountain Chickadee (Parus gambeli baileyae)
Abundant above 4000 feet.

Plain Titmouse (Baeolophus inornatus transpositus)
Common in woodlands throughout.

*No specimen in Tanbark Museum.

[illegible]

1. *Chlorophyll* *a* and *b* contents were determined by the method of Arar and Cook (1987).

Figure 6 shows the results of the regression analysis. The model explains 70% of the variance in the dependent variable ($R^2 = .70$). The adjusted R^2 value is .68. The F-value is 19.94, which is significant at the .001 level. The t-values for the independent variables are also shown. The t-value for the constant is -1.12, which is not significant. The t-value for the first independent variable is 1.12, which is not significant. The t-value for the second independent variable is 1.12, which is not significant. The t-value for the third independent variable is 1.12, which is not significant.

20

[Faint handwritten notes and bleed-through from the reverse side of the page.]

(c) The following information was obtained from the above sources:

1. The following information was obtained from the above sources:

Bush-tit (Psaltiriparus minimus minimus)
Common below 3000 feet.

NUTHATCHES

White-breasted Nuthatch (Sitta carolinensis aculeata)
Occasional; in summer above 4000 feet, in winter as low as 2000 feet.

CREEPERS

Brown Creeper (Certhia familiaris zelotes)
Occasional in forests and oak woodland primarily above 4000 feet.

WREN-TITS

Wren-tit (Chamaea fasciata henshawi)
Common in chaparral.

DIPPERS

American Dipper (Cinclus mexicanus unicolor)
Absent when several consecutive years of low rainfall have caused streams to stop flowing. Common since 1938 in San Dimas Canyon.

WRENS

* Winter Wren (Troglodytes troglodytes pacificus)
Rare winter resident.

Bewick Wren (Thryomanes bewickii correctus)
Common throughout; in chaparral.

Canyon Wren (Catherpes mexicanus conspersus)
Common in deep canyons or around buildings as low as 1200 feet.

Rock Wren (Salpinctes obsoletus obsoletus)
Occasional, rocky areas throughout.

THRASHERS, etc.

Mockingbird (Mimus polyglottos leucopterus)
Foothills below 1500 feet.

California Thrasher (Toxostoma redivivum redivivum)
Abundant throughout; in chaparral.

THRUSHES, etc.

Robin (Turdus migratorius propinquus)
Occasional winter visitor, rare in summer.

* Varied Thrush (Ixoreus naevius meruloides)
Irregular winter visitor; common at Tanbark Flats during winter of 1935-36. Not reported since.

* No specimen in Tanbark Museum.

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Alaska Hermit Thrush (Hylocichla guttata guttata)
Fairly common winter resident.

Monterey Hermit Thrush (Hylocichla guttata slevini)
Migrant.

Mexican Bluebird (Sialia mexicana occidentalis)
Common resident throughout; commonest in summer above 4000 feet
(nesting colony in Brown's Flat); in winter commonest below 4000 ft.

Townsend Solitaire (Myadestes townsendi townsendi)
Sometimes common in the winter above 4000 feet.

KINGLETS AND GNATCATCHERS

Blue-gray Gnatcatcher (Polioptila caerulea amoenissima)
Occasional below 2000 feet in open stretches of the canyons.

Ruby-crowned Kinglet (Regulus calendula cineraceus)
Common winter visitor throughout.

SILKY FLYCATCHERS

Phainopepla (Phainopepla nitens lepida)
Common summer visitor below 2000 feet.

SHRIKES

Loggerhead Shrike (Lanius ludovicianus gambeli)
Occasional up to 3000 feet; firebreaks and other open grassy areas.

VIREOS

Hutton Vireo (Vireo huttoni huttoni)
Common in stream woodland below 3000 feet.

Warbling Vireo (Vireo gilvus swainsonii)
Common in oak woodlands up to 5000 feet.

WOOD WARBLERS

Orange-crowned Warbler (Vermivora celata lutescens)
Occasional summer visitor.

Yellow Warbler (Dendroica aestiva brewsteri)
Common summer visitor in willows along streams.

Audubon Warbler (Dendroica auduboni auduboni)
Occasional summer visitor above 2000; abundant in winter below 3000.

Black-throated Gray Warbler (Dendroica nigrescens)
Occasional summer visitor throughout.

(continued from page 1)

1. The first step in the process is to identify the problem.

2. The second step is to analyze the problem and determine the causes.

3. The third step is to develop a plan of action.

4. The fourth step is to implement the plan and monitor the results.

5. The fifth step is to evaluate the results and make adjustments as needed.

6. The sixth step is to document the process and results.

7. The seventh step is to communicate the results to the relevant parties.

8. The eighth step is to review the process and make improvements.

9. The ninth step is to implement the improvements.

10. The tenth step is to evaluate the results and make adjustments as needed.

11. The eleventh step is to document the process and results.

12. The twelfth step is to communicate the results to the relevant parties.

13. The thirteenth step is to review the process and make improvements.

*Chat (Icteria virens auricollis)

Occasional summer visitor along streams below 1500 feet.

Pileolated Warbler (Wilsonia pusilla chryseola)

Occasional summer visitor along streams.

BLACKBIRDS, ORIOLES, etc.

*Western Meadowlark (Sturnella neglecta)

Occasional on firebreaks and other grassy areas below 3000 feet.

Bullock Oriole (Icterus bullockii)

Common along streams, especially in cottonwoods, and below 3000 ft.

Brown-headed Cowbird (Molothrus ater obscurus)

Rare; reported at 2700 feet.

TANAGERS

Western Tanager (Piranga ludoviciana)

Summer visitor; commonest above 4000; occasional as low as 1500 ft.

FINCHES, SPARROWS, etc.

Black-headed Grosbeak (Hedymeles melanocephalus maculatus)

Common in summer throughout; usually near streams.

Lazuli Bunting (Passerina amoena)

Occasional below 2000 feet.

Purple Finch (Carpodacus purpureus californicus)

Deep canyons of San Dimas drainage as low as 2500 feet. Also in heavy chaparral above 4500 feet.

House Finch (Carpodacus mexicanus frontalis)

Primarily around buildings; abundant at Tanbark Flat.

Pine Siskin (Spinus pinus pinus)

Rare migrant.

Arkansas Goldfinch (Spinus psaltria hesperophilus)

Abundant in summer below 4000 feet. Occasional in winter.

Lawrence Goldfinch (Spinus lawrencei)

Common in the summer.

Spotted Towhee (Pipilo maculatus megalonyx)

Common throughout.

Brown Towhee (Pipilo fuscus crissalis)

Abundant below 4000 feet.

*No specimen in Tanbark Museum.

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*Bell Sparrow (Amphispiza belli belli)
Occasional below 3500 feet.

Oregon Junco (Junco oreganus thurberi)
Abundant throughout; nests above 4000 feet.

White-crowned Sparrow (Zonotrichia leucophrys gambelii)
Abundant migrant; occasional in the winter.

Golden-crowned Sparrow (Zonotrichia coronata)
Common in the winter below 3500 feet.

Kodiak Fox Sparrow (Passerella iliaca insularis)
Rare migrant.

Sooty Fox Sparrow (Passerella iliaca fuliginosa)
Rare migrant.

Slate-colored Fox Sparrow (Passerella iliaca schistacea)
Migrant.

Yosemite Fox Sparrow (Passerella iliaca megarhynchus)
Winter visitor.

Lincoln Sparrow (Melospiza lincolni lincolni)
Rare migrant.

Song Sparrow (Melospiza melodia cooperi)
Common along streams up to 3000 feet.

*No specimen in Tanbark Museum.

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CHECK LIST OF AMPHIBIANS AND REPTILES FOUND
IN THE SAN DIMAS EXPERIMENTAL FOREST

TURTLES

Pacific Terrapin (Clemmys marmorata)

Common along streams and in Flood Control Reservoirs.

SNAKES

*Western Worm Snake (Siagonodon humilis humilis)

Occasional along streams under logs and other organic debris.

California Boa (Lichanura roseofusca roseofusca)

Common in woodland associations.

San Bernardino Ring-necked Snake (Diadophis amabilis modestus)

Occasional in stream woodland.

California Striped Racer (Coluber lateralis)

Common in chamise chaparral.

Western Patch-nosed Snake (Salvadora grahamiae hexalepis)

Occasional in chaparral.

Coast Gopher Snake (Pituophis catenifer catenifer)

Commonest in grassy areas.

Coral King Snake (Lampropeltis multicincta)

Common in woodland associations.

Boyle King Snake (Lampropeltis getulus boylii)

Occasional in grassy areas below 2000 feet.

California Garter Snake (Thamnophis ordinoides hammondi)

Abundant along streams.

Pacific Rattlesnake (Crotalus viridis oreganus)

Common throughout.

LIZARDS

Western Blue-bellied Swift (Sceloporus occidentalis biseriatus)

Commonest below 3000; stream woodland.

Blainville Horned Toad (Phrynosoma blainvillii blainvillii)

Common throughout in open areas or thin chamise chaparral.

*No specimen in Tanbark Museum.

1917

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San Diego Alligator Lizard (Gerrhonotus scincicauda webbia)
Common throughout; usually in woodland or heavy chaparral.

Silvery Footless Lizard (Anniella pulchra)
Occasional in chaparral.

Stejneger Whip-tailed Lizard (Cnemidophorus tessellatus stejnegeri)
Common throughout.

Western Skink (Eumeces skiltonianus)
Occasional.

SALAMANDERS

Pacific Coast Newt (Triturus torosus)
Very abundant near streams especially below 4000 feet.

Northern Slender Salamander (Batrachoseps attenuatus attenuatus)
Occasional in moist locations.

FROGS AND TOADS

Pacific Tree-toad (Hyla regilla)
Common near water.

Sonora Tree-toad (Hyla arenicolor)
Occasional below 2000 feet.

Southern Yellow-legged Frog (Rana boylei muscosa)
Abundant near water.

THE UNIVERSITY OF CHICAGO

PHYSICS DEPARTMENT

REPORT OF THE PHYSICS DEPARTMENT

FOR THE YEAR 1960-1961

CHICAGO, ILLINOIS

1961

1961

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